REMARKS

I. PRELIMINARY REMARKS

Claims 16, 17, 19, 20 and 33 have been amended. Claims 1-12, 14, 15, 18 and 37 have been canceled in order to simplify the issues the application.[1] No claims have been added. Claims 13, 16, 17, 19, 20, 28, 30, 32-36 and 38-40 remain in the application. Reexamination and reconsideration of the application, as amended, are respectfully requested.

Applicant respectfully traverses the finality of the rejection. The MPEP states that the "claims in a new application may be finally rejected in the first Office Action in those situations where ... (B) ***all*** of the claims of the new application (1) are drawn to the ***same invention*** claimed in the earlier application." MPEP 706.07(b), emphasis added. The invention defined by newly presented independent claim 33 required "a control device operable in a first mode to ***simultaneously electronically couple the first, second and third electrodes to a source of tissue ablation energy*** such that the first, second and third electrodes simultaneously transmit ablation energy." The claims in the earlier application were not directed to the claimed three electrode configuration. As such, applicant respectfully submits that claims 33-40 were not directed to the same invention as the claims in the prior application and hereby requests that the Examiner issue a new, non-final Office Action.

Should the finality of the rejection be maintained, applicant notes that the amendments above are not intended to change the scope of the claimed invention. Rather, the amendment to independent claim 33 merely adds a limitation from dependent claim 37 to claim 33 and the amendments to dependent claims 16, 17, 19 and 20 merely changes their dependency from a canceled independent claim to a pending

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[1] Applicant note that the cancellation of claims 1-12, 14, 15, 18 and 37 is not an acquiescence to the rejections thereof and hereby reserves the right to pursue these claims in a continuation application.

independent claim. Accordingly, it is respectfully submitted that such amendments do not raise new issues and should be entered in accordance with 37 C.F.R. § 1.116(a) and MPEP 714.12 and 714.13.

II. BRIEF DESCRIPTION OF THE ILLUSTRATED EMBODIMENTS

The present invention, as defined by the claims, is directed generally to a system for ablating tissue. As shown by way of example in FIG. 59, a system 298 in accordance with one embodiment of the invention includes a controller 300 and a prob 180 that may be inserted into the body. The probe includes an ablation element 176(1) which, in the exemplary embodiment, consists of a plurality of conductive regions E1 to E7 that form an energy emitting region 192. The exemplary controller 300 can be used to selectively switch the operation of the electrodes between unipolar and bipolar ablation modes. The controller 300 can also be used to selectively simultaneously energize some or all of the respective conductive regions E1 to E7 to form a variety of lesion patterns and lengths. [See the specification from, for example, page 53, line 31 to page 58, line 17 and FIGS. 59-66.] Some of these lesion patterns are formed when two conductive regions are separated by a non-conductive region. [See FIGS. 33-35.]

III. REJECTION UNDER SECTION 102

A. Rejection

Claims 33-39 have been rejected under 35 U.S.C. § 102 as being anticipated by the Imran patent. The rejection under 35 U.S.C. § 102 is respectfully traversed. Reconsideration thereof is respectfully requested.

B. Legal Standards

"For a prior art reference to anticipate in terms of 35 U.S.C. § 102, every element of the claimed invention must be identically shown in a single reference." *Diversitech Corp. v. Century Steps, Inc.*, 7 USPQ2d 1315, 1317 (Fed. Cir. 1988).

C. Discussion

Independent claim 33 calls for a combination of elements including, *inter alia*, at least first, second and third contiguous electrodes, a control device operable in a first mode to ***simultaneously electronically couple the first, second and third electrodes to a source of tissue ablation energy such that the first, second and third electrodes simultaneously transmit ablation energy***, and an indifferent electrode adapted to be located on a patient, ***wherein the first, second and third electrodes simultaneously transmit energy to the indifferent electrode***. The Imran patent fails to teach or suggest such a combination.

The Imran patent is directed to a device that includes a plurality of electrode pairs 66, each of which consist of electrodes 67 and 68. Nothing in the Imran patent even remotely suggests that more than one pair of electrodes transmits energy at any given time. As such, the Imran patent fails to teach or suggest a combination including first, second ***and third*** electrodes that simultaneously transmit energy to an indifferent electrode.

As the cited reference fails to teach or suggest each and every element of the combination recited in independent claim 33, applicant respectfully submits that claims 33-36, 38 and 39 are patentable thereover and that the rejection under 35 U.S.C. § 102 must be withdrawn.

IV. REJECTION UNDER SECTION 103

A. Rejection

Claims 1-20, 28, 30, 32 and 40 have been rejected under 35 U.S.C. § 103 as being unpatentable over the combined teachings of the Houser patent and Mackey article. The rejection under 35 U.S.C. § 103 is respectfully traversed. Reconsideration thereof is respectfully requested.[2]

B. Legal Standards

Under the sixth paragraph of 35 U.S.C. § 112, for a means-plus-function limitation to read on a device, the device "must employ means identical to or the equivalent of the structure material, or acts described in the patent specification" and "must also perform the identical function as specified in the claims." *Valmont Industries, Inc. v. Reinke Mfg. Co., Inc.*, 25 USPQ2d 1451, 1454 (Fed. Cir. 1993). This mandate applies to patentability determinations in the PTO as well as to infringement determinations in court. *In re Donaldson Co. Inc.*, 29 USPQ2d 1845, 1848-49 (Fed. Cir. 1994).

With respect to Section 103, the Federal Circuit has repeatedly stated that the mere fact that the prior art could be modified would not have made the modification obvious unless the prior art suggested the desirability of the modification. *See, e.g., In re Laskowski*, 10 USPQ2d 1397 (Fed. Cir. 1989). The references themselves must provide some teaching whereby the applicant's combination would have been obvious. *In re Gorman*, 18 USPQ2d 1885,1888 (Fed. Cir. 1991).

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[2] As claims 1-12, 14, 15 and 18 have been canceled by the above amendment, it is respectfully submitted that the rejections thereof under 35 U.S.C. § 103 has been rendered moot.

C. Claims 13, 16, 17, 19 and 20

Independent claim 13 calls for a combination of elements including, *inter alia*, an energy transmitting region and control means for electronically coupling the region to a source of tissue ablating energy, selectively electronically altering the energy transmitting characteristics of the region to block transmission from portion of the region while allowing transmission from another portion of the region in response to a first input command, and ***electronically varying the length of the region where transmission is allowed between a first non-zero length and a second non-zero length in response to a second input command***. Applicant respectfully submits that the combined teachings of the Houser patent, Mackey article and Imran patent (to the extent applicable) fails to teach or suggest such a combination.

For example, the cited references do not teach or suggest the function defined by the means-plus-function portion of independent claim 13. The Houser patent discloses a mapping assembly including a plurality of electrodes. Although the electrodes may be used to transmit ablating energy to tissue, nothing in the Houser patent suggests that the length of the energy transmitting region may be varied. In other words, nothing in the Houser patent suggests that, for example, two electrodes could be used to transmit ablation energy at one time and three electrodes could be used at another.

The Office Action states that "[s]ince in the vast majority of cases every single electrode of the Houser et al device is not going to need ablation [sic], transmission must be blocked from some areas (electrodes) of the region while other areas (electrodes) transmit ablation energy." To the extent that this statement implies that two or more of the electrodes in the Houser device are used to transmit energy to tissue at the same time, the statement is incorrect. The Houser device delivers energy to one electrode at a time. Thus, the length of the energy transmitting region is always the same, i.e. the length of on electrode.

The Mackey reference discusses the purported superiority of multipolar RF energy over the use of a single tip electrode. Specifically, the Mackey reference states that the use of a four electrode (or quadrapolar) arrangement, where energy is delivered by the electrodes in multipolar fashion, is superior to energy delivery from a single tip electrode. In contrast to the present invention, the Mackey reference does not even remotely suggest that the four electrode device could be connected to a source of ablation energy in such a manner that, for example, only three of the electrodes delivered energy, thereby changing the length of the energy transmitting region. As such, the Mackey reference simply does not suggest modifications of the Houser devic that would lead a skilled artisan to the invention defined by claim 13.

The Imran patent, to the extent that it is applicable, also fails to remedy the deficiencies in the Houser patent. Specifically, the Imran patent discloses a device including a plurality of electrode pairs 66, each of which consist of electrodes 67 and 68. Although Imran teaches that energy can be selectively applied to different pairs 66 through use of a computer and multiplexer arrangement, all of the pairs are the same size, and Imran does not even remotely suggest that two pairs can be energized simultaneously. As such, the energy transmitting region is always the same length, i.e. the length of a single electrode pair.

Accordingly, applicant respectively submits that the Houser and Mackey (and Imran) references fail to teach or suggest the combination of elements recited in independent claim 13, whether viewed alone or in combination, and that the rejection of claims 13, 16, 17, 19 and 20 under 35 U.S.C. § 103 must be withdrawn.

D. Claims 28, 30 and 32

Independent claim 28 calls for a combination of elements including, *inter alia*, a guide element for introduction into a body, a plurality of longitudinally spaced electrodes on the guide element, and a controller operably connected to the plurality of electrodes and to a sourc of tissu ablating energy ... the controll r including switching means for

selectively disconn cting at l ast one of the electrod s within the plurality of longitudinally spaced electrodes from the source of tissue ablating energy in response to a first predetermined input command ***such that two electrodes are electrically connected to the source of tissue ablating energy and the at least on disconnected electrode is between the two connected electrodes***.

As noted in the preceding Section, the Houser patent fails to teach or suggest the connection of more than one electrode to a source of ablating energy at the same time. Thus, it cannot suggest connecting two electrodes to a source of ablating energy with a disconnected electrode therebetween.

The Mackey reference suggests that the delivery of energy to four electrodes in multipolar fashion is superior to the delivery of energy to a single tip electrode. In contrast to the present invention, however, the Mackey reference does not even remotely suggest that the four electrode device could be connected to a source of ablation energy in such a manner that, for example, one of the middle two electrodes was disconnected, thereby resulting in two connected electrodes with one disconnected electrode therebetween. As such, the Mackey reference simply does not suggest modifications of the Houser device that would lead a skilled artisan to the invention defined by claim 28.

As noted above, the Imran patent discloses a catheter which includes a plurality of electrode pairs 66. The pairs are energized one at a time, and the Imran patent fails to even remotely suggest energy can be supplied to two electrodes with a disconnected electrode therebetween. Thus, to the extent that the Imran patent forms part of the rejection under Section 103, it also fails to suggest modifications of the Houser device that would lead a skilled artisan to the invention defined by claim 28.

As the cited references fail to teach or suggest the combination of elements recited in independent claim 28, applicant respectfully submits that the rejection of claims 28, 30 and 32 under 35 U.S.C. § 103 is improper and must be withdrawn.

E. Claim 40

Claim 40, by virtue of its dependence of independent claim 33, calls for a combination of elements including, *inter alia*, at least first, second and third contiguous electrodes, a control device operable in a first mode to ***simultaneously electronically couple the first, second and third electrodes to a source of tissue ablation energy such that the first, second and third electrodes simultaneously transmit ablation energy***, and an indifferent electrode adapted to be located on a patient, ***wherein the first, second and third electrodes simultaneously transmit energy to the indifferent electrode***. The cited references fail to teach or suggest such a combination.

As noted above, the Houser patent discloses a device which energizes electrodes one at a time. The Mackey reference is directed to a device which operates in quadrapolar mode, i.e. a device where energy is transmitted from ***one electrode to another***. Thus, it would not suggest modifications to the Houser device that would result in the simultaneous transmission of energy from three electrodes to an indifferent electrode. The Imran patent merely discloses the use of electrode pairs. Thus, to the extent that it forms part of the rejection, it also fails to suggest modifications of the Houser device that would result in the claimed invention.

As the cited references fail to teach or suggest the combination of elements recited in claim 40, whether viewed alone or in combination, applicant respectfully submits that the rejection of claim 40 under 35 U.S.C. § 103 must be withdrawn.

V. CLOSING REMARKS

In view of the foregoing, it is respectfully submitted that the claims in th application patentably distinguish over the cited and applied references and are in condition for allowance. Reexamination and reconsideration of the application, as amended, are respectfully requested. Allowance of the claims at an early date is courteously solicited.

If for any reason th Examiner finds the application other than in condition for allowance, the Examiner is respectfully requested to call Applicant's undersigned representative at (310) 563-1458 to discuss the steps necessary for placing the application in condition for allowance.

The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 50-0638. Should such fees be associated with an extension of time, applicant respectfully requests that this paper be considered a petition therefor.

Respectfully submitted,

12/1/99
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